

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A bone-cutting apparatus comprising:

a guide removably attachable to a bone, the guide defining a box-cut opening having a lateral axis;

a rotatable mill coupled to the guide, wherein the mill is pivotable about the lateral axis and within the opening along a cutting plane perpendicular to the lateral axis between a first position, in which the mill is laterally slidably adjustable relative to along the lateral axis of the opening, and a second position, in which the mill is laterally constrained relative to lateral axis of the opening.

2. (Currently Amended) The apparatus of claim 1, in which the second position includes a sequence of positions from the first position toward a last position, wherein the last position is determined by a wall of the guide, the wall defined by a cutout of a flange, the flange substantially parallel to the lateral axis and substantially perpendicular to the mill in the last position.

3. (Currently Amended) The apparatus of claim 2, further comprising a rod rotatably supported by the guide along the lateral axis and connected with the mill, the rod coupling the mill to the guide pivotably about the lateral axis.

4. (Currently Amended) The apparatus of claim 3, wherein the rod is laterally slidable relative to the lateral axis of the opening when the mill is in the first position.

5. (Currently Amended) A bone-cutting apparatus comprising:
a guide removably attachable to a bone, the guide defining a box-cut opening;
a rotatable mill coupled to the guide, wherein the mill is pivotable within the opening along a cutting plane between a first position, in which the mill is laterally adjustable relative to the opening, and a second position, in which the mill is laterally constrained relative to the opening, the second position including a sequence of positions from the first position toward a last position, wherein the last position is determined by a wall of the guide; and
a rod rotatably supported by the guide and connected with the mill,
~~The apparatus of claim 3, wherein the rod includes a center hole and two sides holes for selectively receiving the mill.~~

6. (Original) The apparatus of claim 5, wherein the mill is coupled to one of the holes by a press-fit guide pin.

7. (Currently Amended) The apparatus of claim 3 5, further comprising a pin supported on the guide engaging a groove in the rod to prevent lateral sliding of the rod relative to the base.

8. (Currently Amended) The apparatus of claim [[4]] 5, wherein the rod is prevented from sliding when the mill is in the second position.

9. (Original) The apparatus of claim 8, further comprising a pin supported on the guide, and wherein the rod includes a plurality of truncated grooves, such that the pin is selectively engaged in one of the grooves when the mill is pivoted from the first to the second position.

10. (Currently Amended) A bone-cutting apparatus comprising:

 a guide having a base, a bone-attachment flange substantially parallel to the base and two guiding sides substantially perpendicular to the base, the guide defining a box-cut opening having a lateral axis substantially parallel to the flange;

 a rod rotatably supported by the base substantially perpendicularly to the lateral axis, wherein a first portion of the rod includes a plurality of truncated grooves;

 a pin attached to the base substantially perpendicularly to the base and selectively engaging one of the grooves; and

 a rotatable mill coupled to the rod and movable pivotable about the lateral axis between a first position, in which the mill is substantially parallel to the base, and a last position, in which the mill is at an angle relative to the base, wherein the mill is laterally slidably adjustable along the lateral axis within the opening in the first position, and wherein, when the mill is between the first and the last positions, the pin engages one of the grooves and the mill is laterally constrained relative to the lateral axis.

11. (Currently Amended) A bone-cutting apparatus comprising:
a guide having a base, a bone-attachment flange and two guiding sides,
the guide defining a box-cut opening;
a rod rotatably supported by the base, wherein a first portion of the rod
includes a plurality of truncated grooves, The apparatus of claim 10,
wherein the rod is rotatably received in a split bore within the base;
a pin attached to the base and selectively engaging one of the grooves;
and
a rotatable mill coupled to the rod and movable between a first position, in
which the mill is substantially parallel to the base, and a last position, in which the mill is
at an angle relative to the base, wherein the mill is laterally adjustable within the
opening in the first position, and wherein, when the mill is between the first and the last
positions, the pin engages one of the grooves and the mill is laterally constrained.

12. (Original) The apparatus of claim 11, wherein the pin traverses a first portion of the bore.

13. (Original) The apparatus of claim 12, wherein the rod has a chamfered portion preventing engagement of the pin with the grooves when the mill is in the first position.

14. (Original) The apparatus of claim 11, further comprising an indexing mechanism for selecting a lateral location of the mill in the first position.

15. (Original) The apparatus of claim 14, wherein the indexing mechanism includes a spring-loaded ball plunger and a plurality of detents on a second portion of the rod.

16. (Currently Amended) The apparatus of claim 10 11, wherein the mill includes a shaft having a driven end, a cutting portion, and a bore rotatably receiving a pivot pin having an end threadably engaging the rod.

17-25. (Cancelled)

26. (Currently Amended) A bone-cutting apparatus comprising:
a guide removably attachable to a bone, the guide defining an opening having a lateral axis; and
a rotatable mill coupled to the guide, wherein the mill is pivotable within the opening about the lateral axis and along a plurality of parallel planes that are perpendicular to the lateral axis, wherein the mill can be shifted relatively to the opening along the lateral axis.

27. (Currently Amended) The bone-cutting apparatus of claim 26, wherein the opening is box-shaped ~~and the mill pivots within the opening along a plurality of parallel planes that are perpendicular to a lateral axis along which the mill can be shifted~~.

28. (Original) The apparatus of claim 27, wherein the mill cannot be shifted along the lateral axis while pivoting along one of the parallel planes.

29. (Currently Amended) A bone-cutting apparatus comprising:
a guide removably attachable to a bone, the guide having a base, a bone-attachment flange substantially parallel to the base, and two guiding sides, wherein the guiding sides are perpendicular to the base, and the guide includes a box-cut opening defining a lateral axis; and
a rotatable mill coupled to the guide, wherein the mill is pivotable within the opening about the lateral axis and on a plane perpendicular to the lateral axis.

30. (Original) The apparatus of claim 29, wherein the mill pivots within the opening along a plurality of cutting planes that are perpendicular to a lateral axis.

31. (Original) The apparatus of claim 30, wherein the mill is pivotable from a first position substantially parallel to the base to a last position substantially perpendicular to the base.

32. (Original) The apparatus of claim 31, wherein in the first position the mill can be moved along the lateral axis.

33. (Original) The apparatus of claim 32, wherein the mill cannot be moved along the lateral axis while pivoting from the first to the last position.

34-38. (Cancelled)